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30. ROLE OF POISON INFORMATION CENTRE IN THE PREVENTION AND MANAGEMENT OF CHEMICAL ACCIDENTS

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INTRODUCTION

The Poison Information Centre (PIC) in Zagreb is the only one in Croatia serving a population of about 4,5 million inhabitants. It provides a 24-hour telephone information service on the management of toxic exposures to medical professionals and the general public. From 1985 to 1999 the Centre registered a total of 4736 calls due to acute poisoning incidents or suspected poisonings. Figure 1 shows the breakdown of calls according to the cause in three 5-year periods: 1985-1989, 1990-1994 and 1995-1999.

RESULTS AND DISCUSSION

Until 1990, i.e. the beginning of the war, there was little or no concern about the preparedness of the PIC and its staff for the management of the major chemical disasters or even chemical warfare attack. Then it suddenly became a toxicological priority and because of the mass media impact there were numerous calls both from the medical professionals and the public, requiring various information on the exposure to toxic chemicals and chemical warfare agents. We decided that, having no contingency plans ready; the main task of the PIC would be 1. Immediate improvement of our data-base with the protocols for the management of injuries due to chemical weapons, and 2. Education and training of our personnel on the medical aspects of response to chemical accidents. However we failed to establish a more closer cooperation with health services and governmental institutions who were in charge of the emergency situations (for example police and fire departments, the army forces medical service, or the Ministries of Health, Environment etc.) and to take a more active part in the planning, education and training activities on the national level. We gathered some specific experience in dealing with toxic exposures involving multiple casualties that might not be a direct consequence of war operations but are rather characteristic for that period. A typical example was an outbreak of photodermatitis in a group of schoolchildren picking parsley in the vicinity of radar installations, which was initially diagnosed as a "mustard gas" poisoning. An outbreak of scombrototoxicity in the refugee camp, with more than 100 people served a spoiled fish meal, including 20 symptomatic patients needing antihistamine treatment, demonstrated the inadequate supplies of emergency drugs and problems of rapid distribution of drugs to the incident area. There were several smaller incidents caused by inappropriate use of tear gas or due to smoke inhalation in firemen. The majority of calls that could be connected with the war operations were due to psychogenic reactions, when people detected an unusual odour in their homes or residential areas and experienced non-specific symptoms, which were suspected as poisoning with an unknown agent. Timely consultation with the PIC prevented unnecessary treatment and hospital admissions. The main problem in such cases was how to deal with general public and mass media without creating a panic, and at the same time provide a rapid and relevant risk assessment of toxic exposure. A post-war period brought an expected increase of multiple psychoactive drug overdose and an increased incidence of poisoning with drugs of abuse. Also, some typical cases of poisoning with auto-injectors and reagents used for the detection of radioactive contamination were referred to PIC. Although there is an improvement in the legislation and organization of chemical accident prevention and response in Croatia, the PIC needs to be more involved in these activities. The quality of advice given by a PIC will greatly depend on the preparedness of the

staff, previously established procedures, and coordination of the PIC with the national emergency response system. Unfortunately, the PIC is often the last to know about the circumstances of chemical accidents, but the first to be contacted by the hospital personnel dealing with casualties.

CONCLUSION

The more active role of the PIC in all aspects of management of chemical accidents in Croatia should be ensured.

SUMMARY

The Poison Information Centre (PIC) in Zagreb is the only one in Croatia, and it provides a 24-hour telephone information service on the management of toxic exposures to medical professionals and the general public. Although chemical accidents do not always involve poisoning cases, problems regarding prevention, treatment, contingency planning, environmental contamination and other aspect of such incidents are likely to be referred to a PIC. Obviously, providing appropriate information is the primary goal of PIC in any situation, but the quality and adequacy of advice given by a PIC in case of chemical accident will greatly depend on the preparedness of the staff, previously established procedures, and involvement of the PIC in the national emergency response system. This is especially important in case of armed conflicts, war or a post-war situation in the country. The staff of PIC often lacks specific knowledge and experience on chemical warfare agents. In addition, it may also have problems on how to deal with general public and mass media to avoid creating panic and, at the same time provide a rapid and relevant risk assessment of toxic exposure. This could be complicated when it relies only on scarce telephone information, which is often completely unreliable. Experience from the PIC in Zagreb during the last 10 years involves several different incidents or suspected poisonings during the war and post-war period in Croatia, some of which were consequences of mass psychosis or incorrect diagnoses. Also, some typical cases of poisoning with auto-injectors or chemical reagents used for the detection of radioactive contamination were referred to the Centre. Unfortunately, coordination with other national services responsible for emergency preparedness and response is not optimal, often leaving the PIC on the margin of events, or calling it only when the information is needed and the accident has already happened. The PIC is often the last to know on the circumstances of such accidents, but the first to be contacted by the hospital personnel dealing with casualties, so the more active role of the PIC in all aspects of management of chemical accidents should be ensured.

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KEYWORDS

Poison Information Centre, chemical accidents, chemical warfare agents, mass psychosis, antidote

FIGURES

Figure 1. Causes of poisoning incidents reported to the Poison Control Centre in Zagreb between 1985 and 1999

